CP-1044F

ONKYO SERVICE MANUAL

SERIAL NO. 3159

QUARTZ LOCKED DIRECT DRIVE FULLY AUTOMATIC TURNTABLE MODEL CP-1044F

UDN, UD	120V AC, 60 Hz
UU	110/120/220/240V AC, 50/60 Hz

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ ON THE SCHEMATIC DIAGRAM AND IN THE PARTS LIST ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE THESE COMPONENTS WITH ONKYO PARTS WHOSE PARTS NUMBERS APPEAR AS SHOWN IN THIS MANUAL.

MAKE LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLE INSULATED FROM THE SUPPLY CIRCUIT BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

ONKYO
AUDIO COMPONENTS

SPECIFICATIONS

Type:	Quartz locked direct drive fully automatic turntable with auto lead-in and return, reject, repeat, cue and search button functions, two-motor micro-computer design
Turntable Platter:	310 mm (12-1/4") aluminum die-cast.
Motor:	Quartz loked direct drive brushelss DC motor
Speeds:	33-1/3, 45 rpm
Wow & Flutter:	less than 0.025% (WRMS)
Signal-to-Noise Ratio:	better than 75dB (DIN B)
Tonearm:	Statically balanced straight type
Effective Arm Length:	224 mm (8-7/8")
Overhang:	13 mm (1/2")
Offset Angle:	21 degrees
Maximum Tracking Error:	+3 degrees, –1.5 degrees
Suitable Cartridge Weight:	Min. 5, Max. 9 grams
Tracking Force:	0 – 3.0 grams
Other Features:	Tracking force direct readout scale Removable headshell Anti-skating device

Dimensions (W x D x H)	418 x 376 x 132 mm (16-1/2" x 14-13/16" x 5-1/5")
Weight:	6.0 kg (13.2 lbs.)
Accessories:	Headsheell, counterweight, overhang gauge, adapter, instruction manual

Optional Recommended Headshell: SH-21E

Specifications are subject to change for further product improvements.

SERVICE PROCEDURES

Insulation resistance measurement

Connect the insulating-resistance tester between the plug of power supply cord and chassis.

Specifications; D model 500 V 3.3±0.33 MΩ
G/W models 500 V more than 10 MΩ

ADJUSTMENT PROCEDURES

1. **Return sensitivity adjustment (fig. 1)**
   Turn the unit upside-down and, with the DD motor and arm motor connector removed, connect a DC voltmeter between TP and GND. Move the arm to the inside of the platter, put the return sensor in the release position and shut out extraneous light. Starting with the semi-fixed resistor R703 set all the way to the left, begin to rotate the resistor clockwise to the point where the voltage between TP and GND rises 2mV above low (a few hundred mV).

2. **Platter height adjustment (fig. 2)**
   Return the unit to the upright position and rotate the float base height adjustment screw. Adjust so that the platter height is 13mm ± 2mm above the cabinet.

3. **Stylus height adjustment**
   Set the tonearm in the up position and adjust the lifter plate screw so the height of the stylus tip is 8mm ± 1mm above the platter mat.
   Note 1: The height should be 11mm ± 2mm measured from the surface of the platter.
   Note 2: Rotate the lifter plate screw counterclockwise to lower the stylus height and clockwise to raise the stylus height.

4. **Lead-in count adjustment (Tracking force: 2 grams Anti-skating force: 2 grams Speed: 45 rpm)**
   Using test record ONK-1000, adjust so the lead-in count is 10-20 counts for both 30cm and 17cm records. Adjust using the PU pulley shutter and NCDG-1731 printed circuit board jumper lead.
   The count changes in the following manner as the jumper leads are cut:

Jumper lead A	3 count changes
Jumper lead B	6 count changes
Jumper lead C	12 count chnages
Jumper lead ±	cut: − . connect: +

5. **Return count adjustment (Speed: 45 rpm)**
   Using test record ONK-1000, adjust so the 3mm pitch return count is 24-26 counts. Adjust using the PU pulley eccentricity pin. Confirm that the tonearm does not return until 22 counts at a pitch of 1mm.

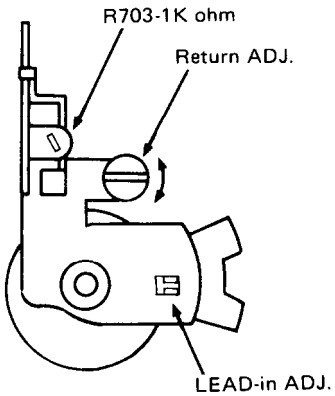


fig. 1

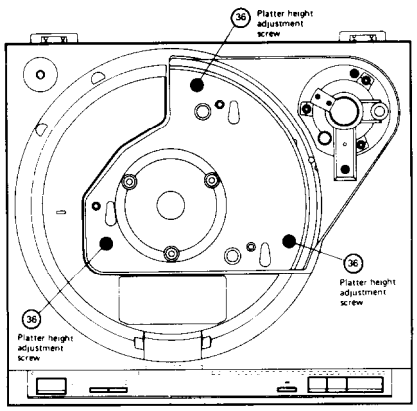
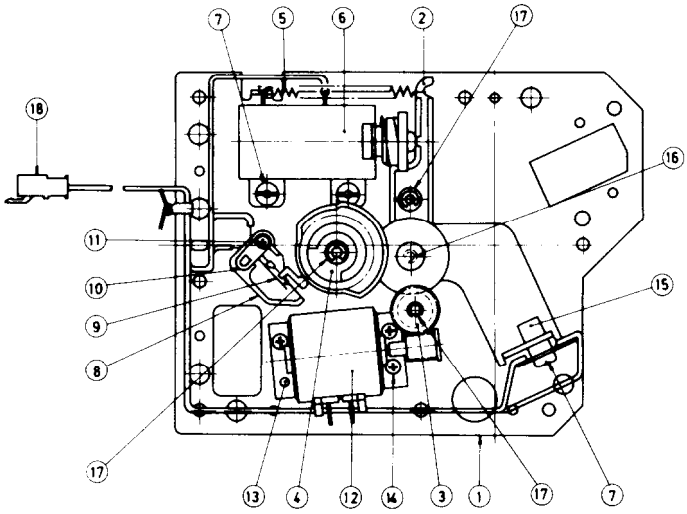


fig. 2

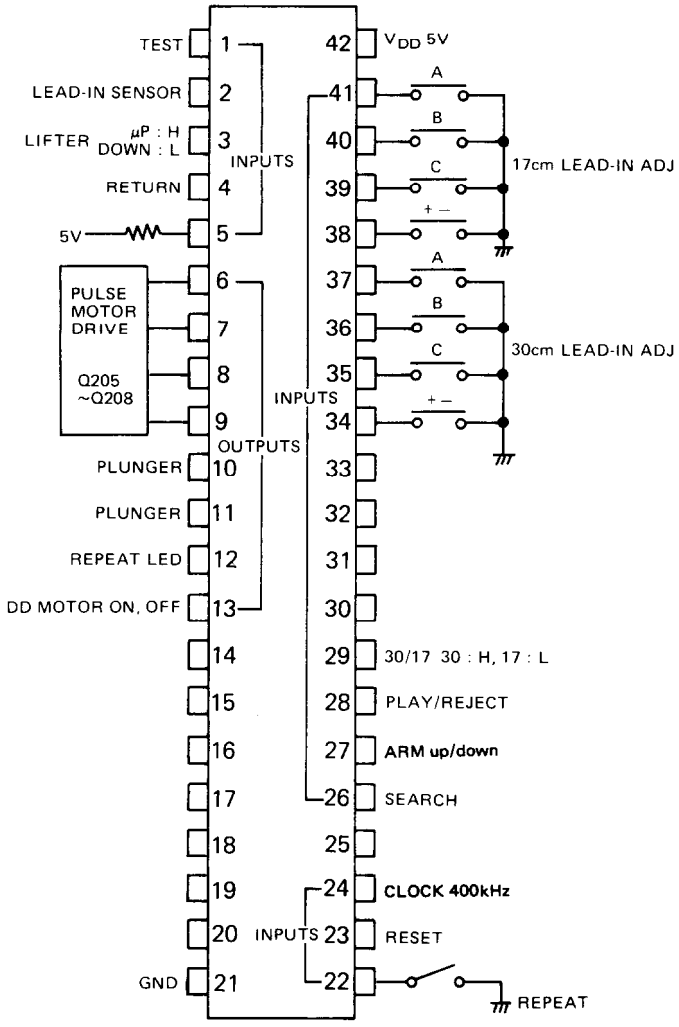
MECHANISM COMPONENT LOCATION



REF. NO.	PARTS NO.	DESCRIPTION
1	24506644	Chassis
2	24504310	Lever
3	24503097	Wheel
4	24503098	Cam wheel
5	24503100	Tension spring
6	24506474	Solenoid
7	24506437	Screw
8	24506463	Cover
9	24503102	Switch
10	24509234	Spacer
11	82112024	2P-24FN, Pan head screw
12	24502125B	Motor ass'y
13	24506464	Rubber plate
14	82142306	2.3P + 6FN (BC), Pan head screw
15	24506596	Photo diode/transistor ass'y
16	893030	E-3, Circlip
17	893020	E-2, Circlip
18	2000241	NSAS-8P179, Socket
19		Belt
20		Label
21	24506658	Screw
22	24506659	Toothed washer
23	24506461	Rubber ring

MICROCOMPUTER

TMP4315AP (1031)



COMPONENT LOCATION PARTS LIST

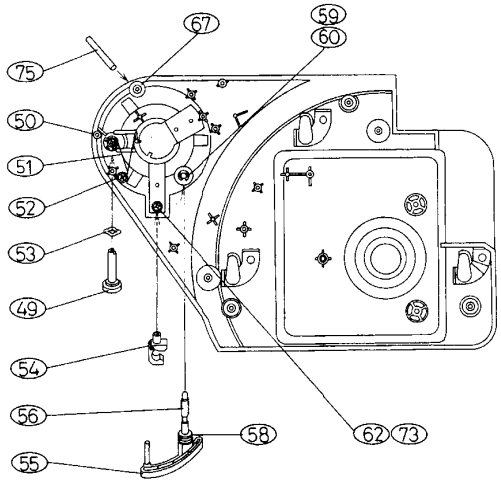
REF. NO.	PARTS NO.	DESCRIPTION
1	28110274	Cabinet
4	28110275A	Floating base ass'y
9	24509279	Dust cover
11	28180078	Hinge
13	28153076	Bottom board
17	24502159	Turntable platter
19	27140866	Bracket B
20	27140393	Bracket AC
22	27150126	Shielded plate
25	27140856	Bracket A
26	28140209	Cushion
27	28140496	Cushion
29	28140507	Cushion
31	24509313	Insulator G
32	24509312	Insulator F
33	24509314	Insulator Y
34	24509289	Insulator E
35	28321222	Knob R
36	28321221	Knob S
37	28321193	Knob L
38	27260119A	Shaft. power
39	27140749A	Bracket, power
40	27260120A	Shaft S
42	8930301S	ES-3, Circlip
43	27267289	Guide L
44	28191196A	Clear plate
45	27262234A	Plate 44
46	28198596	Facet
47	28133078	Back plate A
48	28133079	Back plate B
49	28321163-1	Knob IFC
50	28400012A	Cam IFC
51	27180175A	Spring IFC
52	27267271	Guide IFC
53	870071	WW-6, Wave washer
54	24506645	Tonearm rest ass'y
55	24506648	Lifter plate
56	27260121A	Lifter shaft
57	27180156	Spring
58	27180140-1	Spring
59	8930301S	ES-3S, Circlip
60	87644012	W4x12, Washer
61	831430120	3TTW + 12P (BC), Tapping screw
62	831430100	3TTW + 10P (BC), Tapping screw
63	834440120	4TTP + 12P (BC), Tapping screw
64	834440200	4TTP + 20P (BC), Tapping screw
66	834430108	3TTS + 10B (BC), Tapping screw
67	82544020	4B + 20FN (BC), Screw
68	801275	Special screw
69	82144016	4P + 16FN (BC), Pan head screw
70	87644012	W4x12F (BC), Washer
71	8761401816	W4x12F (BC), Washer
72	27270155	Spacer
73	87313006	M-3B, Toothed washer
74	876430100	W3x10F (BC), Washer
75	27265083	4x5. 3x14, Ring
76	870060	W3x15, Washer

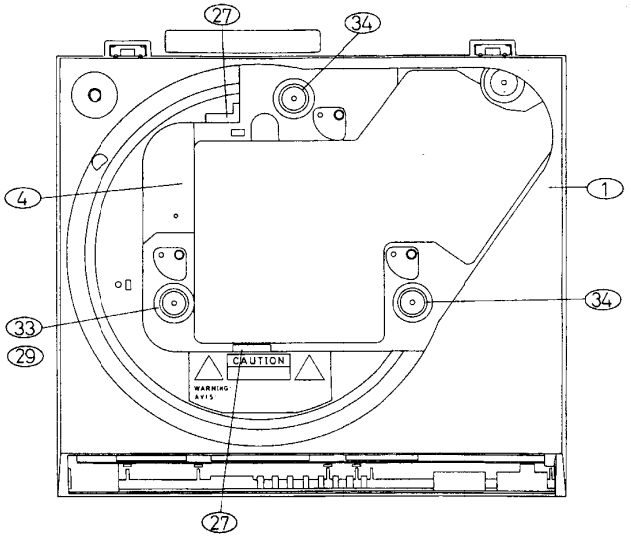
REF. NO.	PARTS NO.	DESCRIPTION
M001	24502155A	787V, Motor ass'y
P001	25050045	NSCT-7P14, DIN terminal
P301	24506642	N-35, Fully automatic mechanism ass'y
P302	24501457	Tone arm ass'y
	24501459	Attachment screw
	24501460	Counter weight
	24501325	Headsheell
P303	24501330	Attachment part ass'y, cartridge (D)
	24501138	2.6x11, Screw
	24501123	2.6x4, Nut
	24506079	Washer
P304	24501456	Cartridge ass'y (U)
	242953	OC-61V, Cartridge
	242954	DN-61ST, Stylus
	24501138	Screw
	24500079	Washer
	24501123	Nut
P901	253099B	AS-UC-3, Power supply cable (D)
	253083	AS-CEE, Power supply cable (U)
P901a	270025	SR-3P-4, Strainrelief (D)
	270280	SR-4K-4, Strainrelief (U)
P902	200250	NSAS-5P188, Socket
⚠ PT101	230734	NPT-816D, Power transformer (D)
	230735	NPT816ADGQ, Power transformer (U)
⚠ SW101	25035385	NPS-111-L349, Power switch (D)
	25035386	NPS-111-L350P, Power switch (D)
⚠ S002	25065168	HXW0131-01-060, Voltage selector switch (U)
U1	10108531	NADG-1731, Power supply and mechanism control pc board ass'y
U2	10128584	NAPS-1684, Power supply terminal pc board ass'y
U3	10108532	NASW-1732, Play switch pc board ass'y
U4	10108533	NALED-1733, Repeat indicator pc board ass'y
U5	10101834	NASW-1734, Size/speed indicator pc board ass'y
U6	10108535	NALED-1735, Size/speed indicator pc board ass'y
U7	16627510	NAPI-1010, Output cable terminal pc board ass'y
U8	10128517B	NARET-917b, Retern detection pc board ass'y

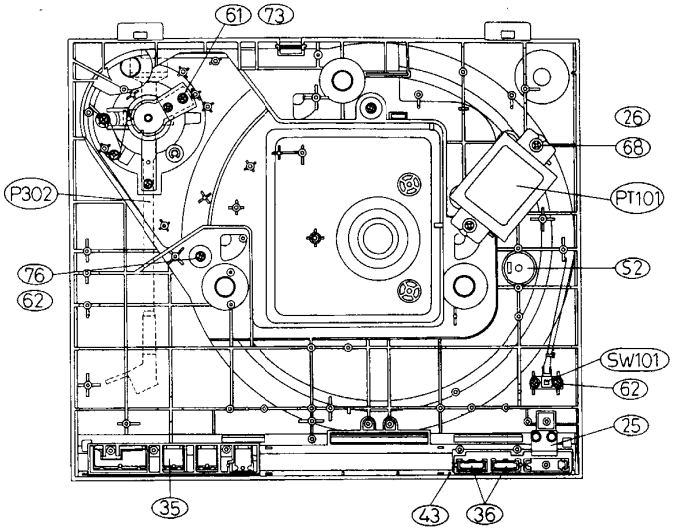
Note: (D): Only 120V model
(U): Only Universal model

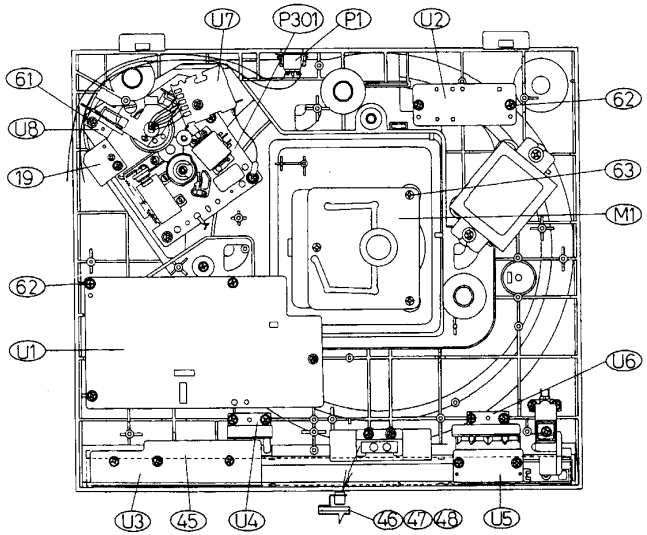
NOTE : THE COMPONENTS IDENTIFIED BY MARK ⚠ ARE CRITICAL FOR LISK OF FIRE AND ELECTRIC SHOCK. REPLACE ONLY WITH PARTS NUMBER SPECIFIED.

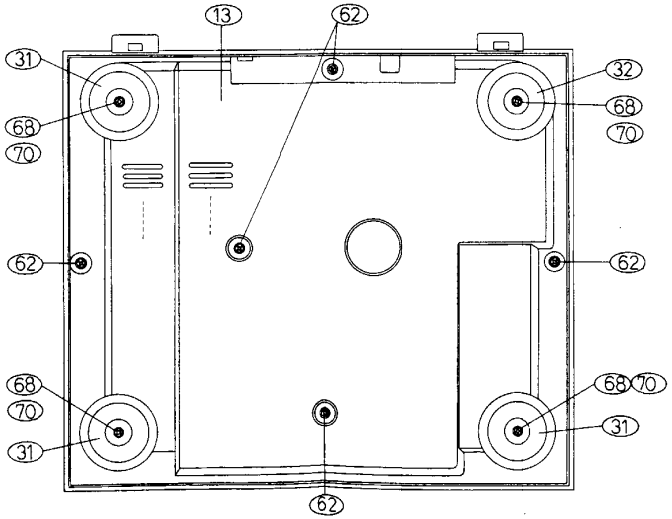
COMPONENT LOCATION

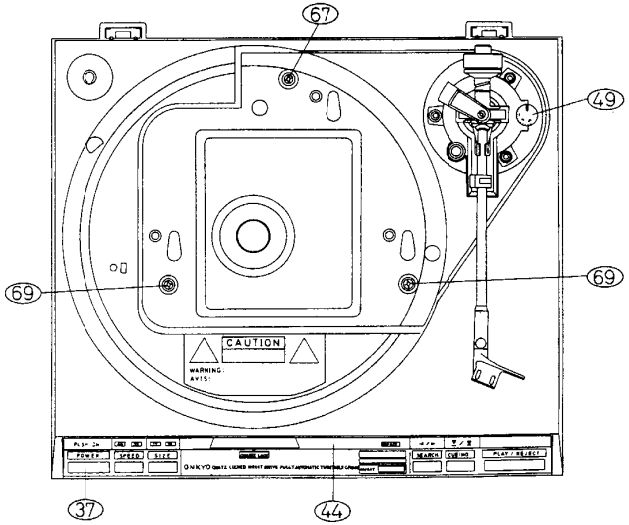




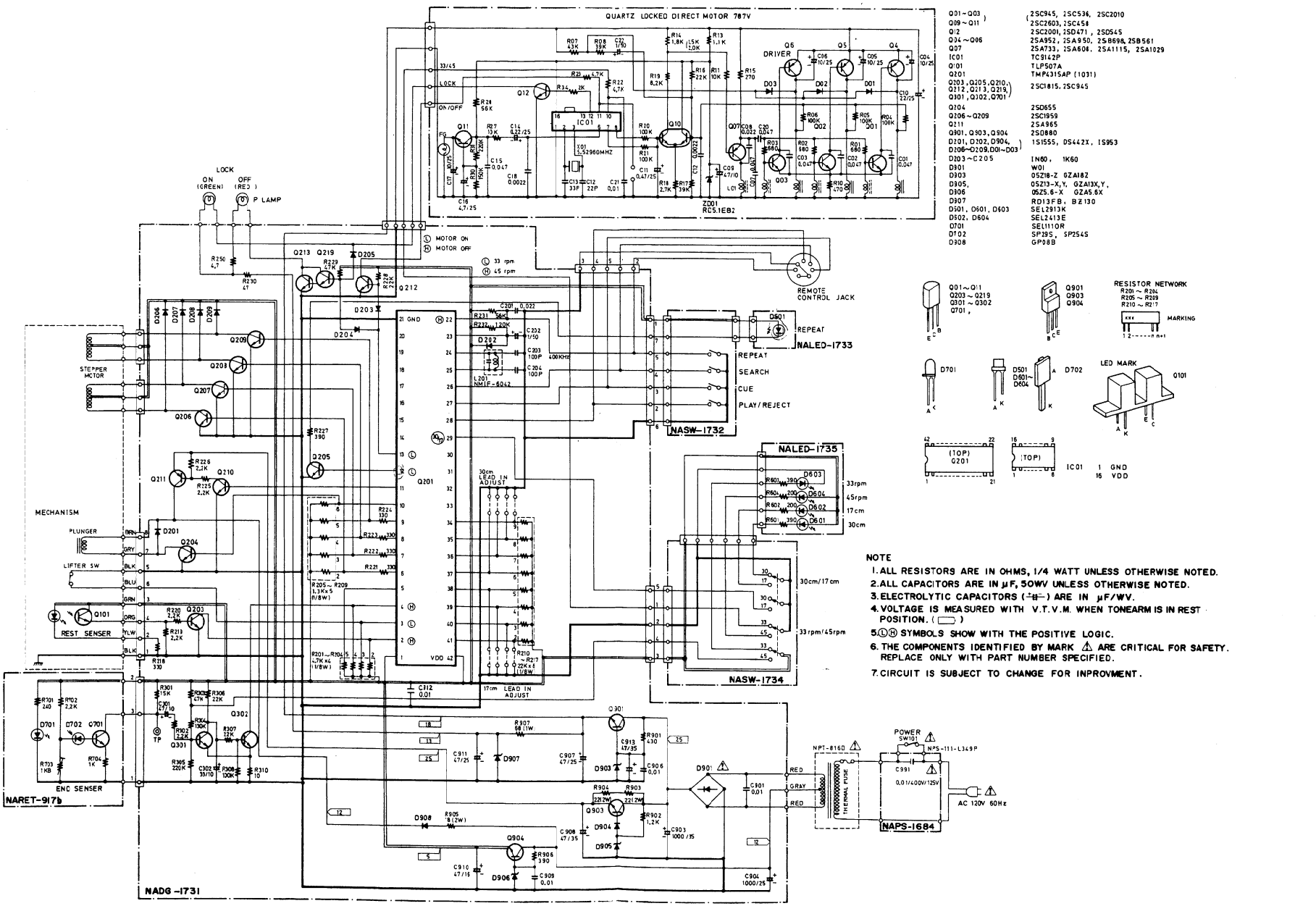








SCHEMATIC DIAGRAM



ONKYO CORPORATION

PRINTED CIRCUIT BOARD-PARTS LIST

POWER SUPPLY AND MECHANISM CONTROL PC BOARD (NADG-1731)

CIRCUIT NO.	PARTS NO.	DESCRIPTION
	IC	
Q201	222677	TMP4315AP (1031)
	Transistors	
Q203, Q205	2211253,	2SC1815 (O),
Q210, Q212	2211254,	2SC1815 (Y),
Q213	2211255,	2SC1815 (GR),
	2210746,	2SC945A (P),
	2210747 or	2SC945A (Q) or
	2210748	2SC945A (K)
Q204	2211706	2SD655 (F)
Q206-Q209	2211544	2SC1959 (Y)
Q211	2211644	2SA965 (Y)
Q301, Q302	2211254 or	2SC1815 (Y) or
	2211255	2SC1815 (GR)
Q901, Q903	2201074	2SD880 (Y)
Q904	2201074	2SD880 (Y)
	Diodes	
D201, D202	223145,	1S2076TD,
D206, D209	223150,	VS1040,
D904	223105 or	1S1555 or
	223133	DS442X
D203, D205	223103 or	1N60 or
	223132	1K60
D901	223869	W01
D903	224200 or	D57Z18-Z or
	2244193	GZA18Z
D905	224190 or	D5Z13Y or
	2241132	GZA18Z
D906	224162 or	D5Z5.6X or
	2240951	GZA5.6X
D908	223848	GP08B
D907	223929,	BZ130,
	2239972 or	RD13FB2 or
	2239973	RD13FB3
	Transformer	
L201	232108	NMIF-6042
	Capacitors	
C202	357280109	1μF, 50V, Elect.
C301	352734709	47μF, 10V, Elect.
C302	352733309	33μF, 10V, Elect.
C903	352761029	1,000μF, 35V, Elect.
C904	352751029	1,000μF, 25V, Elect.
C907	352754709	47μF, 25V, Elect.
C908	352764709	47μF, 35V, Elect.
C910	352744709	47μF, 16V, Elect.
C911	352754709	47μF, 25V, Elect.
	Resistors	
R201-R204	49121472504	4.7kohmx4, 1/8W, Network
R205-R209	49121332505	3.3kohmx4, 1/8W, Network
R210-R217	49121223508	22kohmx8, 1/8W, Network
R903, R904	44172204	22ohm, 1/2W, Metal oxide film
R905	441721804	18ohm, 2W, Metal oxide film
R907	441626804	68ohm, 1W, Metal oxide film
	Sokets	
	2000239	NSAS-5P177
	2000236	NSAS-3P174
	2000237	NSAS-3P175

CIRCUIT NO.	PARTS NO.	DESCRIPTION
	Plugs	
	25055089	NPLG-3P73
	25055091	NPLG-5P75
	25055093	NPLG-7P77
	55055094	NPLG-8P78
	Radiators	
	27160029	RAD07
	Lamps	
	210175	14V. 0.06A
	Bracket	
	27140790	

PLAY SWITCH PC BOARD (NASW-1732)

CIRCUIT NO.	PARTS NO.	DESCRIPTION
	25035291	NPS-111-S257, Push switches
	2000240	NSAS-7P178, Socket

REPEAT INDICATOR PC BOARD (NALED-1733)

CIRCUIT NO.	PARTS NO.	DESCRIPTION
D501	225142	SEL2913K, LED
	27250062	Lamp case
	27140795	Bracket U
	8334330080	3TTP +8P (BC), Tapping screw

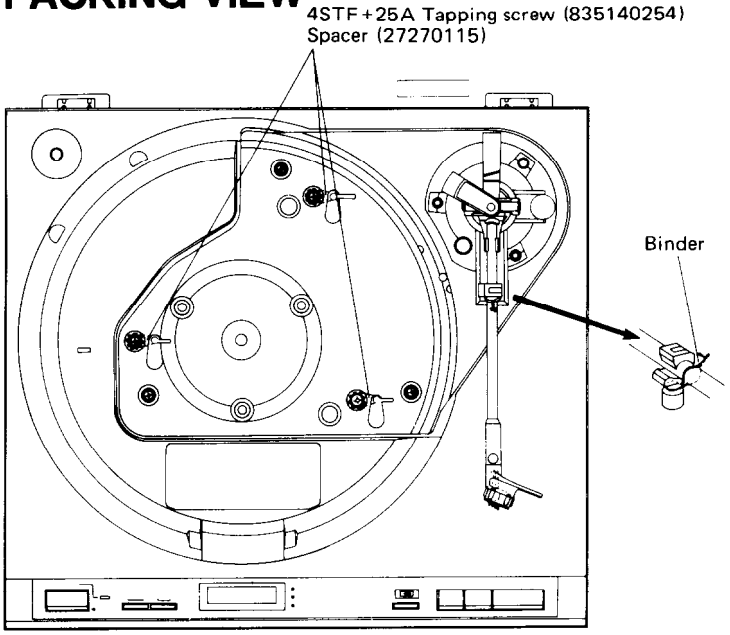
SIZE/SPEED SWITCH PC BOARD (NASW-1734)

CIRCUIT NO.	PARTS NO.	DESCRIPTION
	25035399	NPS-122-L364, Push switch
	2000249	NSAS-5P178, Socket

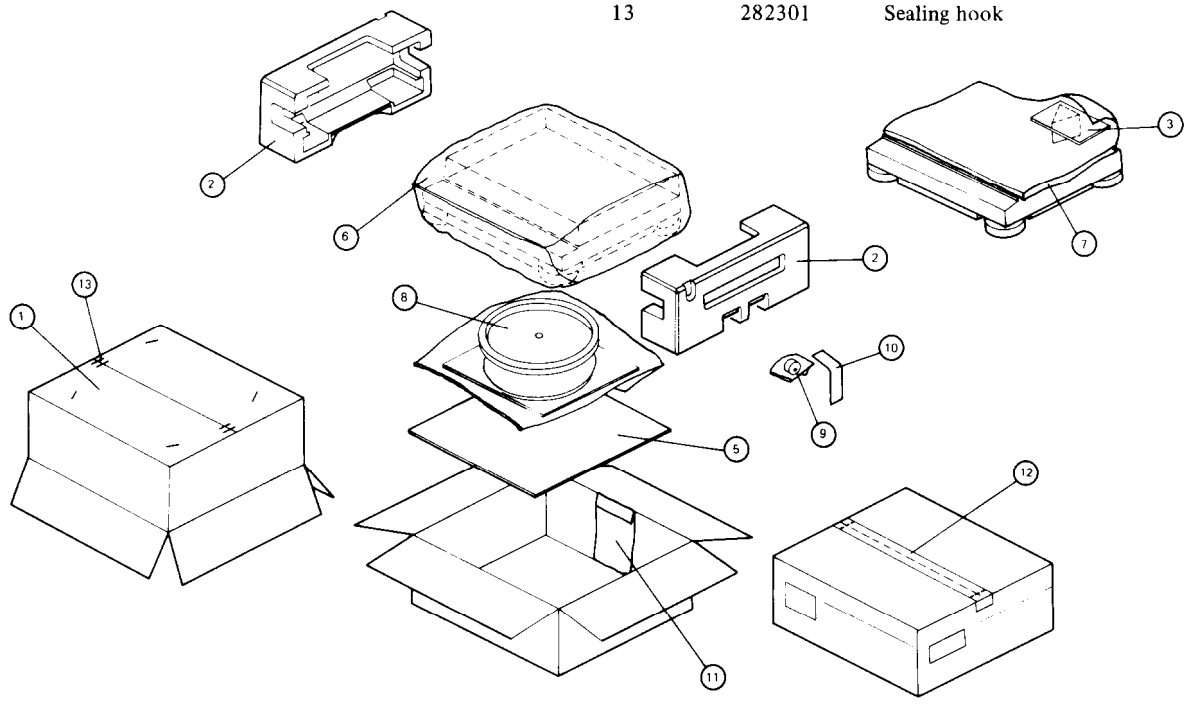
SIZE/SPEED INDICATOR PC BOARD (NALED-1735)

CIRCUIT NO.	PARTS NO.	DESCRIPTION
D601, D603	225142	SEL2913K, LED
D602, D604	225137	SEL2413E, LED
	27250061	Lamp case
	27140795	Bracket U
	833430080	3TTP + 8P (BC), Tapping screw

PACKING VIEW



REF. NO.	PARTS NO.	DESCRIPTION
1	29050778	Master carton box
2	29090791	Pad
3	29090837	Pad, tonearm
5	29095286	Pad sheet
6	29100049	640 x 620m/m, Poly-vinyl bag
7	29095295	Sheet
8	24502159	Turntable platter
	24509286	T.T. sheet
	29100046	370x470mm, Poly-vinyl bag
9	24501460	Counter weight
	29100002A	80x150mm, Poly-vinyl bag
10	260013	P.P tape
11	Accessary bag complete	
	120V model	
	29340704	Instruction manual
	292049A	45rpm adaptor
	24509197	Overhang gauge
	24501330	Cartiridge attachment parts ass'y
	29358002	Service station list (Only USA model)
	29365006-5	Warranty card (Only USA model)
	29100005	220x330mm, Poly-vinyl bag
	120/220V model	
	29340705	Instruction manual
	292049A	45rpm adaptor
	29509197	Overhang gauge
	25055040	C-V-K2, Conversion plug
	29100005	220x330mm, Poly-vinyl bag
12	260012	W550mm, Damplon tape
13	282301	Sealing hook



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